

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

**RESOLUTION E-4810
December 1, 2016**

**REDACTED
R E S O L U T I O N**

Resolution E-4810. Grants Southern California Edison Company's (SCE's) supplemental advice letter for Commission approval regarding three renewable power purchase agreements with Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar.

PROPOSED OUTCOME:

- This Resolution approves the supplemental advice letter that corrects the valuation methodology used to evaluate three long-term renewable energy power purchase agreements between SCE and First Solar for the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar projects. The Rosamond Solar and the Willow Springs Solar facilities are located in Rosamond, California. The Sunshine Valley Solar facility is located in Amargosa, Nevada. The power purchase agreements are approved without modification.

SAFETY CONSIDERATIONS:

- There are no safety considerations associated with the amended project evaluation metrics that were submitted in this Advice Letter.

ESTIMATED COST:

- There are no costs associated with the amended project evaluation metrics that were submitted in this Advice Letter.

By supplemental Advice Letter 3334-E-A, filed on April 6, 2016.

SUMMARY

Southern California Edison Company's (SCE's) submission of revised valuation information to evaluate the renewable energy power purchase agreements (PPAs) with First Solar for the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar projects (collectively the First Solar Projects) complies with the

Renewables Portfolio Standard (RPS) procurement guidelines and is approved without modification.

SCE filed Advice Letter (AL) 3334-E on December 23, 2015, (Original AL) requesting California Public Utilities Commission (Commission) review and approval of three 15-year renewable energy PPAs with the First Solar Project.

All three projects resulted from SCE's 2014 RPS solicitation (2014 RPS RFO¹) and all three PPAs were executed in June 2015. Pursuant to the PPAs, RPS-eligible generation will be purchased from the proposed First Solar Projects.²

Following SCE's submission of AL 3334-E, SCE noticed some errors in their valuation data that was used to evaluate the merits of the First Solar Projects. Consequently, on April 6, 2016, SCE filed AL 3334-E-A to correct the valuation data that was submitted with the original AL.

On September 15, 2016, Resolution E-4790 approved AL 3334-E for the First Solar PPAs. The resolution found that SCE's execution of the PPAs is consistent with SCE's 2014 RPS Procurement Plan (2014 RPS Plan), which the Commission approved in Decision (D.) 14-11-042. Additionally, the resolution found that the RPS deliveries pursuant to the First Solar PPAs were reasonably priced and the related costs to SCE are fully recoverable in rates over the life of the PPAs, subject to Commission review of SCE's administration of the PPAs. The Commission determined the merits of the PPA by using the evaluation information that was submitted with AL 3334-E, however, and did not account for the revised evaluation data that was submitted in AL 3334-E-A.

This Resolution accepts SCE's revised valuation data that was used to evaluate the First Solar PPAs. Specifically, SCE's revisions modify how SCE evaluated congestion costs for projects submitted to the SCE's 2014 large-scale solicitation. These changes are relevant because adjusting the way that energy benefits and congestion costs are valued directly impacts the net market value associated with the projects. Having

¹ Request for Offers.

² The Rosamond Solar and Willow Springs Solar Projects are located in Rosamond (in Kern County), California and will have a capacity of approximately 160 megawatts (MW) and 108 MW, respectively. The Sunshine Valley Solar project is located in Armargosa Valley (in Nye County), Nevada and will have a capacity of 104 MW.

said that, the amended evaluation information that SCE submitted to substantiate the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements is immaterial in the context of the overall evaluation of the projects, because it does not impact the First Solar PPAs' merits for Commission approval.

The First Solar PPAs have not been amended or modified and PPAs remain consistent with SCE's 2014 RPS Procurement Plan (2014 RPS Plan), which the Commission approved in Decision (D.) 14-11-042. Additionally, the first solar PPAs remain reasonably valued.

More detailed information about the revised evaluation information can be found in confidential Appendix A.

Table 1 provides a summary of the PPAs as approved via Commission Resolution E-4790.

Table 1: Summary of the First Solar PPAs

Seller	Generation Type	Size (MW)	Estimated Average Energy (GWh/Yr.)	Forecasted Commercial Operation Date	Term of Agreement (Years)	Location
Rosamond Solar	Solar Tracking photovoltaic ("PV")	160	488	January 1, 2020	15	Rosamond, CA
Willow Springs Solar	Solar Tracking PV	108	330	January 1, 2020	15	Rosamond, CA
Sunshine Valley Solar	Solar Tracking PV	104	302	January 1, 2020	15	Armargosa Valley, NV

BACKGROUND

Overview of the Renewables Portfolio Standard (RPS) Program

The California RPS program was established by Senate Bill (SB) 1078, and has been subsequently modified by SB 107, SB 1036, and SB 2 (1X).³ The RPS program is codified in Public Utilities Code Sections 399.11-399.31.⁴

³ SB 1078 (Sher, Chapter 516, Statutes of 2002); SB 107 (Simitian, Chapter 464, Statutes of 2006); SB 1036 (Perata, Chapter 685, Statutes of 2007); SB 2 (1X) (Simitian, Chapter 1, Statutes

Under SB 2 (1X), the RPS program administered by the Commission requires each retail seller to procure eligible renewable energy resources so that the amount of electricity generated from eligible renewable resources be an amount that equals an average of 20 percent of the total electricity sold to retail customers in California for compliance period 2011-2013; 25 percent of retail sales by December 31, 2016; and 33 percent of retail sales by December 31, 2020.⁵ On October 7, 2015, SB 350⁶ made further changes to Pub. Util. Code Sections 399.11, *et seq.* SB 350 requires in part, that the amount of electricity generated and sold to retail customers from eligible renewable energy resources be increased to 50% by December 31, 2030.

Additional background information about the Commission's RPS Program, including links to relevant laws and Commission decisions, is available at <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm> and <http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

NOTICE

Notice of AL 3334-E-A was made by publication in the Commission's Daily Calendar. SCE states that a copy of the Advice Letter was mailed and distributed to the R.15-02-020 service list and GO 96-B service lists in accordance with Section 4 of General Order 96-B.

DISCUSSION

SCE requests approval of submission of revised valuation information to evaluate the renewable energy power purchase agreements with First Solar for the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar projects

On December 24, 2015, SCE filed the original First Solar AL requesting Commission approval of three RPS eligible PPAs. The proposed Rosamond Solar (160 MW) and

of 2011, First Extraordinary Session).

⁴ All further statutory references are to the Public Utilities Code unless otherwise specified.

⁵ D.11-12-020 established a methodology to calculate procurement requirement quantities for the three different compliance periods covered in SB 2 (1X) (2011-2013, 2014-2016, and 2017-2020). Note it is 33% of a Load Serving Entity's annual retail sales for 2020 and each year thereafter.

⁶ SB 350 (De León, Chapter 547, Statutes of 2015) effective on January 1, 2016.

Willow Springs (108 MW) solar photovoltaic (PV) projects are located in Kern County near Rosamond, California. The proposed Sunshine Valley (104 MW) solar PV project is located in Nye County near Amargosa, Nevada.

Pursuant to the PPAs, SCE would begin purchasing generation from the First Solar projects on January 1, 2020. See Table 1 for the forecasted commercial operation dates and the estimated average annual generation. The generation from all three projects could be eligible to count towards SCE's RPS requirements in Compliance Period 2017-2020.

On April 6, 2016, SCE file a supplemental AL 3334-E-A to correct its valuation and subsequent information in the Appendices to AL 3334-E.

The Commission approved the original AL 3334-E via Resolution E-4790. Please see Resolution E-4790⁷ to see how the Commission evaluated the merits of AL 3334-E.

Energy Division evaluated the AL 3334-E-A based on the following criteria:

- Consistency with SCE's Least-Cost, Best-Fit methodology (LCBF);
- Net Market Value and Cost Reasonableness;
- Independent Evaluator Review; and
- Procurement Review Group Participation

Consistency with SCE's Least-Cost, Best-Fit (LCBF) Methodology

In D.04-07-029 and D.12-11-016, the Commission directed the utilities to use certain criteria in their LCBF selection of renewable resources.⁸ The decisions provide guidance regarding the process by which the utility ranks bids in order to select or "shortlist" the bids with which it will commence negotiations.

As described in its 2014 RPS Plan,⁹ SCE's LCBF bid evaluation includes a quantitative analysis and qualitative criteria. SCE's quantitative analysis is based on

⁷ The final version of Commission Resolution E-4790 can be found at:
<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M167/K242/167242568.PDF>

⁸ Section 399.13(a)(4)(A).

⁹ Public Appendix 1.1 at 2, 3, & 11.

a market valuation methodology that calculates the net market value of a bid,¹⁰ which is the net of a project's levelized costs and benefits.¹¹ Project costs include contract payments, transmission, congestion, and debt equivalence mitigation costs. Project benefits include energy and capacity value and congestion benefits. SCE ranks all conforming bids and creates a preliminary short list based on the net market value results.

In addition to the quantitative ranking of bids, SCE evaluates the qualitative attributes of the top proposals with a competitive net market value. SCE assesses factors such as location, project viability, portfolio fit, resource diversity, counterparty concentration and other attributes to eliminate or add projects to the final short list.

SCE explained in their original AL that the First Solar PPAs are the result of SCE's 2014 RPS solicitation, and that they evaluated and shortlisted the PPA bids consistent with its 2014 LCBF methodology.¹² SCE submitted supplemental AL 3334-E-A when they realized that there was an error their evaluation model that caused some of the projects from their 2014 solicitation to be incorrectly valued.

Specifically, the model incorrectly valued locational congestion costs and assigned negative congestion values to projects in specific locations when a positive congestion values should have been applied. SCE reevaluated the 2014 RPS bids using the corrected congestion values. This change in evaluation methodology increased the forecasted energy market value (relative to the prior valuations) for some project bids, and increased the net market value for a number of bids across the solicitation. There was not a substantive change in the bid ranking order.

See the "Net Market Value" section of this Resolution for a discussion of how the PPAs compare to other offers from SCE's 2014 RPS solicitation and comparable RPS contracts executed by SCE in the 12 months prior to PPA executions.

¹⁰ Unlike the other two utilities, SCE uses a different term, "Renewable Premium" for net market value.

¹¹ Present values expressed in terms of dollars per megawatt-hour (\$/MWh).

¹² SCE's 2014 RPS solicitation protocols, including its LCBF methodology, as described above, was approved by the Commission in D.14-11-042.

Commission Resolution E-4790 found that the First Solar PPAs were evaluated consistent with the LCBF methodology described in SCE's 2014 RPS Procurement Plan. The supplemental advice letter does not change this assessment.

Net Market Value and Cost Reasonableness

The Commission's reasonableness review for RPS PPAs includes a comparison of the proposed PPAs' net market value and price relative to other RPS offers received in recent RPS solicitations and comparable contracts executed by the utility in the 12 months prior to the proposed PPAs' execution date. Using this methodology and the confidential quantitative analysis provided by SCE in the original AL, Commission Resolution E-4790 determined that the net market values of the PPAs are competitive relative to other RPS offers received by SCE and that the costs of the PPAs are reasonable.

After reviewing the revised evaluation information presented in 3334-E-A the Commission confirms that the net market values of the PPAs are competitive relative to other RPS offers received by SCE. See Confidential Appendix A for the details of this analysis.

Commission Resolution E-4790 found that First Solar PPAs compare favorably from a net market value and cost basis relative to RPS offers received in SCE's 2014 RPS solicitation and comparable contracts executed by SCE in the 12 months prior to the execution of the PPAs. The supplemental advice letter does not change this assessment.

Independent Evaluator Review

SCE retained Merrimack Energy Group, Inc. as the independent evaluator (IE) to oversee its 2014 RPS solicitation. In addition, Merrimack oversaw the negotiations and evaluated the overall merits of the First Solar PPAs. The original AL includes a public and confidential version of the IE's report.

The IE states in its report that all three PPAs were reasonably negotiated with contract terms that taken as a whole appropriately protect the interests of SCE's ratepayers. The IE concluded that changes to the evaluation information that SCE submitted in AL 3334-E-A did not create a material change in the bid ranking order, and does not impact the PPAs' merits for Commission approval.

Consistent with D.06-05-039, an independent evaluator oversaw SCE's 2014 RPS solicitation and negotiations with the First Solar PPAs. The supplemental advice letter does not change this assessment.

Procurement Review Group (PRG) Participation

The Commission established the PRG in D.02-08-071. The PRG reviews and assesses the details of the utilities' overall procurement strategy, solicitations, specific proposed procurement contracts and other procurement processes prior to submitting filings to the Commission as a mechanism for procurement review by non-market participants.

SCE consulted with its PRG during each milestone of the 2014 RPS solicitation informing the participants of the initial bid results and the short list of bids. SCE informed the PRG of the initial results of its RFP, explained the evaluation process, and updated the PRG periodically concerning the status of contract formation. On March 11, 2015, SCE advised the PRG of its proposed shortlist of proposals for its 2014 RPS solicitation. On July 15, 2015, SCE briefed the PRG on the proposed execution of the First Solar PPAs. On March 23, 2016, SCE notified the PRG of the error in their valuation model and their intent to file a supplemental AL to submit revised valuation information for the projects that were selected from the 2014 solicitation.

SCE's PRG participants included representatives from Energy Division (ED), the Office of Ratepayer Advocates (ORA), Department of Water Resources, Union of Concerned Scientists, The Utility Reform Network (TURN), and the California Utility Employees (CUE).

Pursuant to D.02-08-071, SCE's Procurement Review Group participated in the review of the First Solar PPAs. The supplemental advice letter does not change this assessment.

Safety Considerations

California PU Code §451 requires that every public utility maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment and facilities to ensure the safety, health, and comfort of the public.

The First Solar PPAs, as approved in Commission Resolution E-4790, require the sellers of the generation to comply with all applicable requirements of law relating to the projects including those related to planning, construction, ownership, decommissioning and/or operation of the projects, including environmental laws. Based on the revised valuation information submitted to the Commission, these contracts do not appear to result in any adverse safety impacts on the facilities or operations of SCE. This Resolution reaffirms the findings of Resolution E-4790 pertaining to the safety considerations of the First Solar PPAs.

Confidential Information

The Commission, in implementing Section 454.5(g), has determined in D.06-06-066, as modified by D.07-05-032 and D.16-08-024, that certain material submitted to the Commission as confidential should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS contracts. Such information, including price, is confidential for three years from the date the contract states that energy deliveries begin, or until one year following contract expiration, except contracts between IOUs and their affiliates, which are public.

The confidential appendices, marked “[REDACTED]” in the public copy of this Resolution, as well as the confidential portions of the supplemental AL, should remain confidential at this time.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

All parties in the proceeding have stipulated to waive the 30-day waiting period required by PU Code section 311 (g)(1) and the opportunity to file comments on the draft resolution. Accordingly, this matter will be placed on the Commission's agenda directly for prompt action.

FINDINGS

1. The amended evaluation information that Southern California Edison Company submitted to substantiate the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements is non-consequential in context of the overall evaluation of the projects, and it does not impact the First Solar PPAs’ merits for Commission approval.
2. The Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements remain consistent with Southern California Edison Company’s (SCE) 2014 Renewables Portfolio Standard (RPS) Procurement Plan,

as approved by D.14-11-042. The supplemental advice letter does not change this assessment.

3. The Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements were evaluated consistent with the Least-Cost, Best-Fit methodology described in SCE's 2014 RPS Procurement Plan. The supplemental advice letter does not change this assessment.
4. The Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements compare reasonably from a net market value and cost basis relative to RPS offers received in SCE's 2014 RPS solicitation and contracts executed in the 12 months prior to the execution of these contracts. The supplemental advice letter does not change this assessment.
5. Pursuant to D.06-05-039, an independent evaluator oversaw SCE's 2014 Renewables Portfolio Standard procurement solicitation and SCE's negotiations for the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements. The supplemental advice letter does not change this assessment.
6. Pursuant to D.02-08-071, SCE's Procurement Review Group participated in the review of the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar power purchase agreements. The supplemental advice letter does not change this assessment.
7. The confidential appendices, marked "[REDACTED]" in the public copy of this Resolution, as well as the confidential portions of 3334-E-A should remain confidential at this time.
8. Advice Letter 3334-E-A should be approved effective today.

THEREFORE IT IS ORDERED THAT:

1. The request of the Southern California Edison Company to review the revised valuation information that was used to evaluate the renewable energy power purchase agreements with First Solar for the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar projects (collectively the First Solar Projects) complies with the Renewables Portfolio Standard procurement guidelines and this request is approved without modification. Southern California Edison Advice Letter 3334-E-A is approved.

This Resolution is effective today.

I certify that the foregoing Resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on December 1, 2016; the following Commissioners voting favorably thereon:

/s/TIMOTHY J. SULLIVAN
TIMOTHY J. SULLIVAN
Executive Director

MICHAEL PICKER
President
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
LIANE M. RANDOLPH
Commissioners

Confidential Appendix A

Evaluation Summary of the Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar Power Purchase Agreements (PPAs)

[Redacted]

Confidential Appendix B

Excerpt from the Independent Evaluator Report on the
Rosamond Solar, Willow Springs Solar, and Sunshine
Valley Solar Power Purchase Agreements ¹³

[Redacted]

¹³ Excerpts from: Reports of the Independent Evaluator Final Selection Process and Review of Power Purchase Agreements with Rosamond Solar, Willow Springs Solar, and Sunshine Valley Solar Power in December 2015, as submitted with the First Solar AL.